AMENDMENTS TO THE CLAIMS

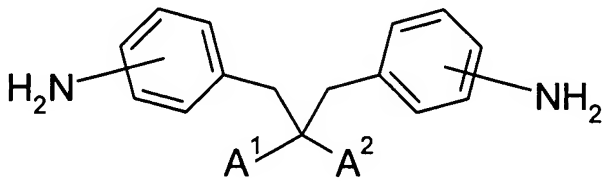
This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (canceled).

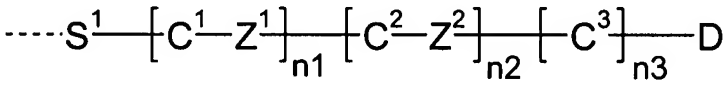
2. (canceled).

3. (currently amended): Diamine compounds ~~according to claim 1,~~ represented by the general formula I:



I

wherein A^1 and A^2 each independently ~~preferably~~ represent a mesogen group represented by general formula II:



II

wherein

C^1 to C^3 each independently represent an aromatic or an alicyclic group, which is unsubstituted or mono- or poly-substituted by a cyano group or by halogen atoms,

or by a cyclic, straight-chain or branched alkyl residue which is unsubstituted, mono- or poly-substituted by fluorine, chlorine, having 1 to 18 carbon atoms, wherein one or more non-adjacent -CH_2- groups may independently be replaced by a group B;

D represents a hydrogen atom, a halogen atom, a cyano group, or a straight-chain or branched alkyl residue which is unsubstituted, mono-substituted by cyano or fluorine, chlorine, or poly-substituted by fluorine, chlorine, having 1 to 24 carbon atoms, wherein one or more non-adjacent -CH_2- groups may independently be replaced by a group B, or represents a organic group having a steroid skeleton;

S^1 represents a single bond or a spacer unit such a straight-chain or branched alkylene group which is unsubstituted, mono or poly-substituted by a cyano group or by halogen atoms, having 1 to 24 carbon atoms, wherein one or more non-adjacent -CH_2- groups may independently be replaced by a group B;

Z1 , Z2 each independently of the other represent a single bond or a spacer unit such a straight-chain or branched alkylene group which is unsubstituted, mono or poly-substituted by a cyano group or by halogen atoms, having 1 to 8 carbon atoms, wherein one or more non-adjacent -CH_2- groups may independently be replaced by a group B;

n1 to n3 are each independently 0 or 1; and

B ~~is as defined above~~represents a group selected from -O-, -CO-, -CO-O-, -O-CO-, -NR^1-, -NR^1-CO-, -CO-NR^1-, -NR^1-CO-O-, -O-CO-NR^1-, -NR^1-CO-NR^1-,

-CH=CH-, -C≡C-, -O-CO-O- and -$Si(CH_3)_2$-O-$Si(CH_3)_2$- and wherein R^1 represents a hydrogen atom or lower alkyl,

with the proviso that if n1 = n2 = n3 = 0 then D is a straight-chain or branched alkyl residue which is unsubstituted, mono-substituted by cyano or fluorine, chlorine, or poly-substituted by fluorine, chlorine, having 5 to 24 carbon atoms, wherein one or more non-adjacent -CH_2- groups may independently be replaced by a group B, or represents a organic group having a steroid skeleton.

4. (currently amended): Diamine compounds according to claim 3, wherein C^1 to C^3 are selected from pyrimidine-2,5-diyl, pyridine-2,5-diyl, 1,4- or 2,6-naphthylene, decahydronaphthalin-2,6-diyl, ~~1,2,3,4-tetrahydronaphtalin-2,6-diyl,~~ 1,2,3,4-tetrahydronaphthalin-2,6-diyl, cyclohexane-1,4-diyl and 1,4-phenylene, which is unsubstituted or substituted by a cyclic, straight-chain or branched alkyl residue which is unsubstituted, mono- or poly-substituted by fluorine, chlorine having from 1 to 12 carbon atoms in which optionally one or more non-adjacent -CH_2- groups are replaced by -O-, -CO-, -CO-O-, -O-CO-, -CH=CH- and -C≡C-.

5. (previously presented): Diamine compounds according to claim 3, wherein C^1 to C^3 are selected from cyclohexane-1,4-diyl and 1,4-phenylene, which is unsubstituted or substituted by a cyclic, straight-chain or branched alkyl residue having 1 to 12 carbon atoms in which optionally one or more non-adjacent -CH_2- groups are replaced by -O-, -CO-, -CO-O-, -O-CO-, -CH=CH- and -C≡C-.

6. (previously presented): Diamine compounds according to claim 3, wherein D is a hydrogen atom, a fluoro atom, a chloro atom, a cyano group or a straight-chain or branched alkyl residue which is unsubstituted, mono-substituted by cyano or fluorine, chlorine, or poly-

substituted by fluorine, chlorine, having 1 to 18 carbon atoms, wherein one or more non-adjacent-CH_2- groups may independently be replaced by -O-, -CO-, -CO-O-, -O-CO-, -NR^1-CO-, -CO-NR^1-, -NR^1-CO-O-, -O-CO-NR^1-, -CH=CH-, -C≡C- and -O-CO-O-, wherein R^1 represents a hydrogen atom or lower alkyl, or represents an organic group having a steroid skeleton.

7. (previously presented): Diamine compounds according to claim 3, wherein D is a hydrogen atom, a fluoro atom, a chloro atom, a cyano group or a straight-chain or branched alkyl residue, having 1 to 12 carbon atoms, wherein one or more non-adjacent -CH_2- groups may independently be replaced by -O-, -CO-, -CO-O-, -O-CO-, -CH=CH-, -C≡C- and -O-CO-O-.

8. (previously presented): Diamine compounds according to claim 3, wherein S^1 is selected from a single covalent bond, -CO-O-, -CO-NR^1-, -CO- and a straight-chain or branched alkylene group which is unsubstituted, mono or poly-substituted by fluorine, chlorine and cyano, having 1 to 24 carbon atoms, wherein one or more non-adjacent -CH_2- groups may independently be replaced by a group B, wherein R^1 represents a hydrogen atom or lower alkyl.

9. (previously presented): Diamine compounds according to claim 3, wherein S^1 is selected from a single covalent bond, -CO-O-, -CO-, -$(CH_2)_r$-, -$(CH_2)_r$-O-, -$(CH_2)_r$-CO-, -$(CH_2)_r$-CO-O-, -$(CH_2)_r$-O-CO-, -$(CH_2)_r$-CO-NR^1-, -$(CH_2)_r$-NR^1-CO-, -$(CH_2)_r$-NR^1-, -CO-O-$(CH_2)_r$-, -CO-NR^1-$(CH_2)_r$-, -CO-O-$(CH_2)_r$-O-, -CO-NR^1-$(CH_2)_r$-O-, -CO-NR^1-$(CH_2)_r$-NR^1-, -CO-NR^1-$(CH_2)_r$-O-CO-, -$(CH_2)_r$-O-$(CH_2)_s$-, -$(CH_2)_r$-CO-O-$(CH_2)_s$-, -$(CH_2)_r$-O-CO-$(CH_2)_s$-, -$(CH_2)_r$-NR^1-CO-$(CH_2)_s$-, -$(CH_2)_r$-NR^1-CO-O-$(CH_2)_s$-, -$(CH_2)_r$-O-$(CH_2)_s$-O-, -$(CH_2)_r$-CO-O-$(CH_2)_s$-O-, -$(CH_2)_r$-O-CO-$(CH_2)_s$-O-,

$-(CH_2)_r-NR^1-CO-(CH_2)_s-O-$, $-(CH_2)_r-NR^1-CO-O-(CH_2)_s-O-$, $-CO-O-(CH_2)_r-O-(CH_2)_s-$ and $-CO-O(CH_2)_r-O-(CH_2)_s-O-$, wherein R^1 is as defined above, r and s each represent an integer from 1 to 20, preferably from 1 to 12, and $r + s \leq 21$, preferably ≤ 15.

10. (previously presented): Diamine compounds according to claim 3, wherein S^1 is selected from a single covalent bond, $-(CH_2)_r-$, $-(CH_2)_r-O-$, $-(CH_2)_r-CO-O-$, $-(CH_2)_r-O-CO-$, $-(CH_2)_r-CO-NH-$, $-(CH_2)_r-NH-CO-$, $-CO-O-(CH_2)_r-$, $-CO-NH-(CH_2)_r-$, $-CO-O-(CH_2)_r-O-$, $-CO-NH-(CH_2)_r-O-$, $-(CH_2)_r-NH-CO-(CH_2)_s-$, $-(CH_2)_r-NH-CO-O-(CH_2)_s-$, $-(CH_2)_r-O-(CH_2)_s-O-$, $-(CH_2)_r-NH-CO-(CH_2)_s-O-$, $-(CH_2)_r-NHCO-O-(CH_2)_s-O-$, $-CO-O-(CH_2)_r-O-(CH_2)_s-O-$, and $-CO-(CH_2)_r-NH-CO-(CH_2)_s-O-$, wherein r and s each represent an integer from 1 to 12 and $r + s \leq 15$.

11. (previouysly presented): Diamine compounds according to claim 3, wherein S^1 include 1,2-ethylene, 1,3-propylene, 1,4-butylene, 1,5-pentylene, 1,6-hexylene, 1,7-heptylene, 1,8-octylene, 1,9-nonylene, 1,10-decylene, 1,11-undecylene, 1,12-dodecylene, 3-methyl-1,4-butylene, 2-(methylenoxy)ethylene, 3-(methylenoxy)propylene, 4-(methylenoxy)butylene, 5-(methylenoxy)pentylene, 6-(methylenoxy)hexylene, 7-(methylenoxy)heptylene, 8-(methylenoxy)octylene, 9-(methylenoxy)nonylene, 10-(methylenoxy)decylene, 11-(methylenoxy)undecylene, 12-(methylenoxy)dodecylene, 2-(carbonyloxy)ethylene, 3-(carbonyloxy)propylene, 4-(carbonyloxy)butylene, 5-(carbonyloxy)pentylene, 6-(carbonyloxy)hexylene, 7-(carbonyloxy)heptylene, 8-(carbonyloxy)octylene, 9-(carbonyloxy)nonylene, 10-(carbonyloxy)decylene, 11-(carbonyloxy)undecylene, 12-(carbonyloxy)dodecylene, 2-(carbonylamino)ethylene, 3-(carbonylamino)propylene, 4-(carbonylamino)butylene, 5-(carbonylamino)pentylene,

6-(carbonylamino)hexylene, 7-(carbonylamino)heptylene, 8-(carbonylamino)octylene, 9-(carbonylamino)nonylene, 10-(carbonylamino)decylene, 11-(carbonylamino)undecylene, 12-(carbonylamino)dodecylene, 3-propyleneoxy, 3-propyleneoxycarbonyl, 2-ethylenoyloxy, 4-butyleneoxy, 4-butyleneoxycarbonyl, 3-propylenoyloxy, 5-pentyleneoxy, 5-pentyleneoxycarbonyl, 4-butylenoyloxy, 6-hexyleneoxy, 6-hexyleneoxycarbonyl, 5-pentylenoyloxy, 7-heptyleneoxy, 7-heptyleneoxycarbonyl, 6-hexylenoyloxy, 8-octyleneoxy, 8-octyleneoxycarbonyl, 7-heptylenoyloxy, 9-nonyleneoxy, 9-nonyleneoxycarbonyl, 8-octylenoyloxy, 10-decyleneoxy, 10-decyleneoxycarbonyl, 9-nonylenoyloxy, 11-undecyleneoxy, 11-undecyleneoxycarbonyl, 10-decylenoyloxy, 12-dodecyleneoxy, 12-dodecyleneoxycarbonyl, 11-undecylenoyloxy, 3-propyleneaminocarbonyl, 4-butyleneaminocarbonyl, 5-pentyleneaminocarbonyl, 6-hexyleneaminocarbonyl, 7-heptyleneaminocarbonyl, 8-octyleneaminocarbonyl, 9-nonyleneaminocarbonyl, 10-decyleneaminocarbonyl, 11-undecyleneaminocarbonyl, 12-dodecyleneaminocarbonyl, 2-ethylenecarbonylamino, 3-propylenecarbonylamino, 4-butylenecarbonylamino, 5-pentylenecarbonylamino, 6-hexylenecarbonylamino, 7-heptylenecarbonylamino, 8-octylenecarbonylamino, 9-nonylenecarbonylamino, 10-decylenecarbonylamino, 11-undecylenecarbonylamino, 2-(methylenoxy)ethanoyloxy, 3-(methylenoxy)propyloxy, 3-(methylenoxy)propyloxycarbonyl, 4-(methylenoxy)butyloxy, 4-(methylenoxy)butyloxycarbonyl, 3-(methylenoxy)propanoyloxy, 5-(methylenoxy)pentyloxy, 5-(methylenoxy)pentyloxycarbonyl, 4-(methylenoxy)butanoyloxy, 6-(methylenoxy)hexyloxy, 6-(methylenoxy)hexyloxycarbonyl, 5-(methylenoxy)pentanoyloxy, 7-(methylenoxy)heptyloxy, 7-(methylenoxy)heptyloxycarbonyl, 6-(methylenoxy)hexanoyloxy, 8-(methylenoxy)octyloxy, 8-(methylenoxy)octyloxycarbonyl, 7-(methylenoxy)heptanoyloxy, 9-(methylenoxy)nonyloxy,

9-(methylenoxy)nonyloxycarbonyl, 8-(methylenoxy)octanoyloxy, 10-(methylenoxy)decyloxy,

10-(methylenoxy)decyloxycarbonyl, 9-(methylenoxy)nonanoyloxy,

11-(methylenoxy)undecyloxy, 11-(methylenoxy)undecyloxycarbonyl,

10-(methylenoxy)decanoyloxy, 12-(methylenoxy)dodecyloxy,

12-(methylenoxy)dodecyloxycarbonyl, 11-(methylenoxy)undecanoyloxy,

3-(methylenoxy)propylaminocarbonyl, 4-(methylenoxy)butylaminocarbonyl,

5-(methylenoxy)pentylaminocarbonyl, 6-(methylenoxy)hexylaminocarbonyl,

7-(methylenoxy)heptylaminocarbonyl, 8-(methylenoxy)octylaminocarbonyl,

9-(methylenoxy)nonylaminocarbonyl, 10-(methylenoxy)decylaminocarbonyl,

11-(methylenoxy)undecylaminocarbonyl, 12-(methylenoxy)dodecylaminocarbonyl,

2-(methylenoxy)ethanoylamino, 3-(methylenoxy)propanoylamino,

4-(methylenoxy)butanoylamino, 5-(methylenoxy)pentanoylamino,

6-(methylenoxy)hexanoylamino, 7-(methylenoxy)heptanoylamino,

8-(methylenoxy)octanoylamino, 9-(methylenoxy)nonanoylamino,

10-(methylenoxy)decanoylamino, 11-(methylenoxy)undecanoylamino, 12-

(methylenoxy)dodecylaminocarbonyl, 2-(carbonyloxy)ethanoyloxy, 3-(carbonyloxy)propyloxy,

3-(carbonyloxy)propyloxycarbonyl, 4-(carbonyloxy)butyloxy, 4-(carbonyloxy)butyloxycarbonyl,

3-(carbonyloxy)propanoyloxy, 5-(carbonyloxy)pentyloxy, 5-(carbonyloxy)pentyloxycarbonyl,

4-(carbonyloxy)butanoyloxy, 6-(carbonyloxy)hexyloxy, 6-(carbonyloxy)hexyloxycarbonyl,

5-(carbonyloxy)pentanoyloxy, 7-(carbonyloxy)heptyloxy, 7-(carbonyloxy)heptyloxycarbonyl,

6-(carbonyloxy)hexanoyloxy, 8-(carbonyloxy)octyloxy, 8-(carbonyloxy)octyloxycarbonyl,

7-(carbonyloxy)heptanoyloxy, 9-(carbonyloxy)nonyloxy, 9-(carbonyloxy)nonyloxycarbonyl,

8-(carbonyloxy)octanoyloxy, 10-(carbonyloxy)decyloxy, 10-(carbonyloxy)decyloxycarbonyl,

9-(carbonyloxy)nonanoyloxy, 11-(carbonyloxy)undecyloxy,

11-(carbonyloxy)undecyloxycarbonyl, 10-(carbonyloxy)decanoyloxy,

12-(carbonyloxy)dodecyloxy, 12-(carbonyloxy)dodecyloxycarbonyl,

11-(carbonyloxy)undecanoyloxy, 3-(carbonyloxy)propylaminocarbonyl,

4-(carbonyloxy)butylaminocarbonyl, 5-(carbonyloxy)pentylaminocarbonyl,

6-(carbonyloxy)hexylaminocarbonyl, 7-(carbonyloxy)heptylaminocarbonyl,

8-(carbonyloxy)octylaminocarbonyl, 9-(carbonyloxy)nonylaminocarbonyl,

10-(carbonyloxy)decylaminocarbonyl, 11-(carbonyloxy)undecylaminocarbonyl,

12-(carbonyloxy)dodecylaminocarbonyl, 2-(carbonyloxy)ethanoylamino,

3-(carbonyloxy)propanoylamino, 4-(carbonyloxy)butanoylamino,

5-(carbonyloxy)pentanoylamino, 6-(carbonyloxy)hexanoylamino,

7-(carbonyloxy)heptanoylamino, 8-(carbonyloxy)octanoylamino,

9-(carbonyloxy)nonanoylamino, 10-(carbonyloxy)decanoylamino,

11-(carbonyloxy)undecanoylamino, 12-(carbonyloxy)dodecylaminocarbonyl

6-(3-propyleneaminocarbonyloxy)hexylene, 6-(3-propyleneoxy)hexylene,

6-(3-propyleneoxy)hexyloxy, 6-(3-propyleneaminocarbonyloxy)hexyloxy,

6-(3-propyleneaminocarbonyl)hexyl, 6-(3-propyleneaminocarbonyl)hexyloxy,

2-(1-methyleneoxy)ethyloxycarbonyloxy, 3-(1-methyleneoxy)propyloxycarbonyloxy,

6-(1-methyleneoxy)hexyloxycarbonyloxy, 2-(1-methyleneoxycarbonyl)ethylene,

3-(1-methyleneoxycarbonyl)propyloxycarbonyloxy,

6-(1-methyleneoxycarbonyl)hexyloxycarbonyloxy, 6-(3-propyleneoxycarbonyloxy)hexylene,

6-(3-propyleneoxycarbonyl)hexylene, 2-(1-methyleneaminocarbonyl)ethylene,

3-(1-methyleneaminocarbonyl)propylene, 6-(1-methyleneaminocarbonyl)hexylene,

6-(3-propyleneaminocarbonyloxy)hexylene, 6-(3-propyleneaminocarbonyl)hexylene and the like.

12. (previously presented): Diamine compounds according to claim 3, wherein Z^1 and Z^2 are selected form a single covalent bond or a spacer unit such as a straight-chain or branched alkylene group, which is unsubstituted, mono or poly-substituted by fluoro atoms, having 1 to 8 carbon atoms, wherein one or more non-adjacent $-CH_2-$ groups may independently be replaced by a group selected from -O-, -CO-, -CO-O-, -O-CO-, $-NR^1-CO-$, $-CO-NR^1-$, -CH=CH-, -C≡C-, and wherein R^1 represents a hydrogen atom or lower alkyl.

13. (previously presented): Diamine compounds according to claim 3, wherein Z^1 and Z^2 are selected form a single covalent bond or a spacer unit such a straight-chain or branched alkylene group having 1 to 4 carbon atoms, wherein one or two non-adjacent $-CH_2-$ groups may independently be replaced by a group selected from -O-, -CO-, -CO-O-, -O-CO-.

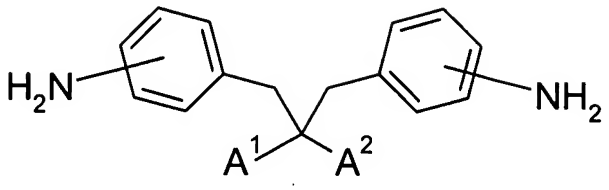
14. (previously presented): Diamine compounds according to claim 3, wherein n2 = 1 and n3 = 1.

15. (previously presented): Diamine compounds according to claim 3, wherein n1 = 0 with n2 = 1 and n3 = 1.

16. (previously presented): Diamine compounds according to claim 3, wherein D is an organic group having a steroid skeleton if n1+n2+n3 = 0.

17. (previously presented): Diamine compounds according to claim 3, wherein the steroid skeleton is a 3-cholesteryl or a 3-cholestanyl residue.

18. (previously presented): Diamine compounds ~~according to claim 1,~~ represented by the general formula I:



I

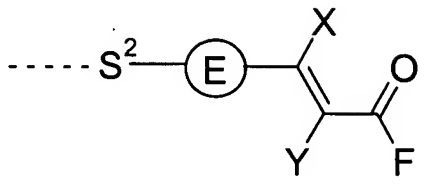
wherein A^1 and A^2 each independently ~~preferably~~ represent a photoreactive group which can be photoisomerized and/or photodimerized on exposure to UV or laser light.

19. (original): Diamine compounds according to claim 18, wherein the photoreactive groups are able to undergo photocyclization, in particular [2+2]-photocyclization.

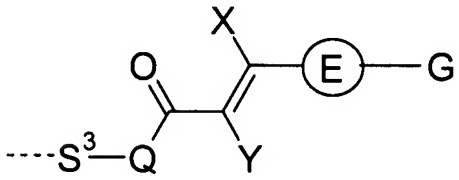
20. (previously presented): Diamine compounds according to claim 18, wherein the photoreactive groups are sensitive to UV or laser light, in particular linearly polarized UV light.

21. (previously presented): Diamine compounds according to claim 18, wherein the photoreactive groups include cinnamates, benzylidenephthalimidines, benzylideneacetophones, diphenylacetylenes stilbazoles, uracyl, quinolinone, maleinimides, or cinnamylidene acetic acid derivatives, particularly preferred groups are cinnamates, coumarins, benzylideneacetophenones, or maleinimides.

22. (previously presented): Diamine compounds according to claim 18, wherein the photoreactive groups are represented by general formulae IIIa and IIIb:



IIIa



IIIb

wherein

E represents pyrimidine-2,5-diyl, pyridine-2,5-diyl, 2,5-thiophenylene, 2,5-furanylene, 1,4- or 2,6-naphthylene, or phenylene, which is unsubstituted or mono- or poly-substituted by fluorine, chlorine or by a cyclic, straight-chain or branched alkyl residue which is unsubstituted mono- or poly-substituted by fluorine, chlorine, having 1 to 18 carbon atoms, wherein one or more non-adjacent -CH_2- groups may independently be replaced by a group B as defined hereinabove;

F represents –OR^2, -NR^3R^4 or an oxygen atom, which defines together with the ring E a coumarin unit, wherein R^2, R^3 and R^4 are selected from hydrogen, a cyclic, straight-chain or branched alkyl residue which is unsubstituted, mono- or poly-substituted by fluorine, chlorine, having 1 to 24 carbon atoms, wherein one or more non-adjacent -CH_2- groups may independently be replaced by a group J, or R^3 and R^4 together form a C_{5-8} alicyclic ring; wherein

J represents a group selected from -O-, -CO-, -CO-O-, -O-CO-, -NR^1-, -NR^1-CO-, -CO-NR^1-, -NR^1-CO-O-, -O-CO-NR^1-, -NR^1-CO-NR^1-, -CH=CH-, -C≡C-, -O-CO-O- and -$Si(CH_3)_2$-O-$Si(CH_3)_2$-, an aromatic or an alicyclic group, and wherein R^1 represents a hydrogen atom or lower alkyl;

G represents a hydrogen atom, or a halogen atom, or a straight-chain or branched alkyl group which is unsubstituted, mono or poly-substituted by cyano, fluorine, chlorine, having 1 to 24 carbon atoms, wherein one or more -CH_2- groups may independently be replaced by a group J, with the proviso that oxygen atoms are not directly attached to each other;

S^2 , S^3 each independently of the other represent a single bond or a spacer unit such as a straight-chain or branched alkylene group which is unsubstituted, mono or poly-substituted by fluorine, chlorine,or cyano, having 1 to 40 carbon atoms, wherein one or more -CH_2- groups may independently be replaced by a group J, with the proviso that oxygen atoms are not directly attached to each other;

Q represents an oxygen atom or -NR^1- wherein R^1 represents a hydrogen atom or lower alkyl;

X, Y each independently of the other represents hydrogen, fluorine, chlorine, cyano, alkyl optionally substituted by fluorine having 1 to 12 carbon atoms in which optionally one or more non-adjacent alkyl -CH_2- groups are replaced by -O-, -CO-O-, -O-CO- and/or -CH=CH-.

23. (original): Diamine compounds according to claim 22, wherein E is selected from pyrimidine-2,5-diyl, pyridine-2,5-diyl, 2,5-thiophenylene, 2,5-furanylene, 1,4- or 2,6-naphthylene and phenylene, which is unsubstituted or substituted by a cyclic, straight-chain or branched alkyl residue which is unsubstituted, mono- or poly-substituted by fluorine, chlorine having 1 to 12 carbon atoms in which optionally one or more non-adjacent alkyl $-CH_2-$ groups are replaced by -O-, -CO-, -CO-O-, -O-CO-, -CH=CH- and -C≡C-.

24. (previously presented): Diamine compounds according to claim 22, wherein E is selected from 2,5-furanylene, 1,4- or 2,6-naphthylene and phenylene, which is unsubstituted or substituted by a cyclic, straight-chain or branched alkyl residue having 1 to 12 carbon atoms in which optionally one or more non-adjacent alkyl $-CH_2-$ groups are replaced by -O-, -CO-, -CO-O-, -O-CO-, -CH=CH- and -C≡C-.

25. (previously presented): Diamine compounds according to claim 22, wherein F is selected from $-OR^2$ and $-NR^3R^4$, wherein R^2 and R^3 represent a cyclic, straight-chain or branched alkyl residue which is unsubstituted, mono- or poly- substituted by fluorine, chlorine, cyano, having 1 to 18 carbons atoms, wherein one or more non-adjacent alkyl $-CH_2-$ groups may independently be replaced by -O- or -CH=CH-, wherein R^4 is selected from a hydrogen atom or a cyclic, straight-chain or branched alkyl residue which is unsubstituted, mono- or poly-substituted by fluorine, chlorine, cyano, having 1 to 18 carbons atoms, wherein one or more non-adjacent $-CH_2-$ groups may independently be replaced by -O- or -CH=CH-, or R^4 and R^5 together to form a C_{5-8} alicyclic ring.

26. (previously presented): Diamine compounds according to claim 22, wherein F is selected from the group comprising $-OR^2$ or $-NHR^3$, wherein R^2 and R^3 represent a cyclic,

straight-chain or branched alkyl residue which is unsubstituted, mono- or poly- substituted by fluorine atoms, having 1 to 18 carbon atoms, wherein one or more non-adjacent $-CH_2-$ groups may

27. (previously presented): Diamine compounds according to claim 22, wherein G is a hydrogen atom, or fluorine atom, or chlorine atom, or a straight-chain or branched alkyl group which is unsubstituted, mono-substituted by cyano, fluorine or chlorine or poly-substituted by fluorine, chlorine, having 1 to 18 carbon atoms, wherein one or more $-CH_2-$ groups may independently be replaced -O-, -CO-, -CO-O-, -O-CO-, $-NR^1-$, $-NR^1-CO-$, $-CO-NR^1-$, $-NR^1-CO-O-$, $-O-CO-NR^1-$, $-NR^1-CO-NR^1-$, -CH=CH-, -C≡C- and -O-CO-O-, an aromatic or an alicyclic group, with the proviso that oxygen atoms are not directly attached to each other, and wherein R^1 represents a hydrogen atom or lower alkyl.

28. (previously presented): Diamine compounds according to claim 22, wherein G is a hydrogen atom, or a straight-chain or branched alkyl group having 1 to 18 carbon atoms, wherein one or more non-adjacent $-CH_2-$ groups may independently be replaced -O-, -CO-, -CO-O-, -O-CO-, $-NR^1-$, $-NR^1-CO-$, $-CO-NR^1-$, and -O-CO-O-, with the proviso that oxygen atoms are not directly attached to each other, and wherein R^1 represents a hydrogen atom or lower alkyl.

29. (previously presented): Diamine compounds according to claim 22, wherein S^2 is selected from a single covalent bond, -CO-O-, $-CO-NR^1-$, -CO- and a straight-chain or branched alkylene group which is unsubstituted, mono or poly-substituted by fluorine, chlorine,or cyano, having 1 to 24 carbon atoms, wherein one or more $-CH_2-$ groups may independently be replaced

by a group J, with the proviso that oxygen atoms are not directly attached to each other, wherein R^1 represents a hydrogen atom or lower alkyl.

30. (previously presented): Diamine compounds according to claim 22, wherein S^2 is selected from a single covalent bond, -CO-O-, -CO-, $-(CH_2)_r-$, $-(CH_2)_r-O-$, $-(CH_2)_r-CO-$, $-(CH_2)_r-CO-O-$, $-(CH_2)_r-O-CO-$, $-(CH_2)_r-CO-NR^1-$, $-CO-O-(CH_2)_r-O-$, $-(CH_2)_r-NR^1-CO-$, $-(CH_2)_r-NR^1-$, $-CO-O-(CH_2)_r-$, $-CO-NR^1-(CH_2)_r-$, $-CO-NR^1-(CH_2)_r-O-$, $-CO-NR^1-(CH_2)_r-NR^1-$, $-CO-NR^1-(CH_2)_r-O-CO-$, $-(CH_2)_r-O-(CH_2)_s-$, $-(CH_2)_r-CO-O-(CH_2)_s-$, $-(CH_2)_r-O-CO-(CH_2)_s-$, $-(CH_2)_r-NR^1-CO-(CH_2)_s-$, $-(CH_2)_r-NR^1-CO-O-(CH_2)_s-$, $-(CH_2)_r-O-(CH_2)_s-O-$, $-(CH_2)_r-CO-O-(CH_2)_s-O-$, $-(CH_2)_r-O-CO-(CH_2)_s-O-$, $-(CH_2)_r-NR^1-CO-(CH_2)_s-O-$, $-(CH_2)_r-NR^1-CO-O-(CH_2)_s-O-$, $-CO-O-(CH_2)_r-O-(CH_2)_s-$ and $-CO-O-(CH_2)_r-O-(CH_2)_s-O-$, wherein R^1 is as defined above, r and s each represent an integer from 1 to 20, preferably from 1 to 12, and $r + s \leq 21$, preferably ≤ 15.

31. (previously presented): Diamine compounds according to claim 22, wherein S^2 is selected from a single covalent bond, $-(CH_2)_r-$, $-(CH_2)_r-O-$, $-(CH_2)_r-CO-O-$, $-(CH_2)_r-O-CO-$, $-(CH_2)_r-CO-NH-$, $-(CH_2)_r-NH-CO-$, $-CO-O-(CH_2)_r-$, $-CO-NH-(CH_2)_r-$, $-CO-O-(CH_2)_r-O-$, $-CO-NH-(CH_2)_r-O-$, $-(CH_2)_r-NH-CO-(CH_2)_s-$, $-(CH_2)_r-NH-CO-O-(CH_2)_s-$, $-(CH_2)_r-O-(CH_2)_s-O-$, $-(CH_2)_r-NH-CO-(CH_2)_s-O-$, $-(CH_2)_r-NH-CO-O-(CH_2)_s-O-$, $-CO-O-(CH_2)_r-O-(CH_2)_s-O-$, and $-CO-(CH_2)_r-NH-CO-(CH_2)_s-O-$, wherein r and s each represent an integer from 1 to 12 and $r + s \leq 15$.

32. (previously presented): Diamine compounds according to claim 22, wherein S^2 include 1,2-ethylen, 1,3-propylen, 1,4-butylen, 1,5-pentylen, 1,6-hexylen, 1,7-heptylen,

1,8-octylen, 1,9-nonylen, 1,10-decylen, 1,11-undecylen, 1,12-dodecylen, 3-methyl-1,4-butylen, 2-(methylenoxy)ethylen, 3-(methylenoxy)propylen, 4-(methylenoxy)butylen, 5-(methylenoxy)pentylen, 6-(methylenoxy)hexylen, 7-(methylenoxy)heptylen, 8-(methylenoxy)octylen, 9-(methylenoxy)nonylen, 10-(methylenoxy)decylen, 11-(methylenoxy)undecylen, 12-(methylenoxy)dodecylen, 2-(carbonyloxy)ethylen, 3-(carbonyloxy)propylen, 4-(carbonyloxy)butylen, 5-(carbonyloxy)pentylen, 6-(carbonyloxy)hexylen, 7-(carbonyloxy)heptylen, 8-(carbonyloxy)octylen, 9-(carbonyloxy)nonylen, 10-(carbonyloxy)decylen, 11-(carbonyloxy)undecylen, 12-(carbonyloxy)dodecylen, 2-(carbonylamino)ethylen, 3-(carbonylamino)propylen, 4-(carbonylamino)butylen, 5-(carbonylamino)pentylen, 6-(carbonylamino)hexylen, 7-(carbonylamino)heptylen, 8-(carbonylamino)octylen, 9-(carbonylamino)nonylen, 10-(carbonylamino)decylen, 11-(carbonylamino)undecylen, 12-(carbonylamino)dodecylen, 3-propylenoxy, 3-propylenoxycarbonyl, 2-ethylenoyloxy, 4-butylenoxy, 4-butylenoxycarbonyl, 3-propylenoyloxy, 5-pentylenoxy, 5-pentylenoxycarbonyl, 4-butylenoyloxy, 6-hexylenoxy, 6-hexylenoxycarbonyl, 5-pentylenoyloxy, 7-heptylenoxy, 7-heptylenoxycarbonyl, 6-hexylenoyloxy, 8-octylenoxy, 8-octylenoxycarbonyl, 7-heptylenoyloxy, 9-nonylenoxy, 9-nonylenoxycarbonyl, 8-octylenoyloxy, 10-decylenoxy, 10-decylenoxycarbonyl, 9-nonylenoyloxy, 11-undecylenoxy, 11-undecylenoxycarbonyl, 10-decylenoyloxy, 12-dodecylenoxy, 12-dodecylenoxycarbonyl, 11-undecylenoyloxy, 3-propylenaminocarbonyl, 4-butylenaminocarbonyl, 5-pentylenaminocarbonyl, 6-hexylenaminocarbonyl, 7-heptylenaminocarbonyl, 8-octylenaminocarbonyl, 9-nonylenaminocarbonyl, 10-decylenaminocarbonyl, 11-undecylenaminocarbonyl, 12-dodecylenaminocarbonyl, 2-ethylenoylamino, 3-propylenoylamino, 4-butylenoylamino, 5-pentylenoylamino,

6-hexylenoylamino, 7-heptylenoylamino, 8-octylenoylamino, 9-nonylenoylamino,

10-decylenoylamino, 11-undecylenoylamino, 2-(methylenoxy)ethanoyloxy ,

3-(methylenoxy)propyloxy, 3-(methylenoxy)propyloxycarbonyl, 4-(methylenoxy)butyloxy,

4-(methylenoxy)butyloxycarbonyl, 3-(methylenoxy)propanoyloxy, 5-(methylenoxy)pentyloxy,

5-(methylenoxy)pentyloxycarbonyl, 4-(methylenoxy)butanoyloxy, 6-(methylenoxy)hexyloxy,

6-(methylenoxy)hexyloxycarbonyl, 5-(methylenoxy)pentanoyloxy, 7-(methylenoxy)heptyloxy,

7-(methylenoxy)heptyloxycarbonyl, 6-(methylenoxy)hexanoyloxy, 8-(methylenoxy)octyloxy,

8-(methylenoxy)octyloxycarbonyl, 7-(methylenoxy)heptanoyloxy, 9-(methylenoxy)nonyloxy,

9-(methylenoxy)nonyloxycarbonyl, 8-(methylenoxy)octanoyloxy, 10-(methylenoxy)decyloxy,

10-(methylenoxy)decyloxycarbonyl, 9-(methylenoxy)nonanoyloxy,

11-(methylenoxy)undecyloxy, 11-(methylenoxy)undecyloxycarbonyl,

10-(methylenoxy)decanoyloxy, 12-(methylenoxy)dodecyloxy,

12-(methylenoxy)dodecyloxycarbonyl, 11-(methylenoxy)undecanoyloxy,

3-(methylenoxy)propylaminocarbonyl, 4-(methylenoxy)butylaminocarbonyl,

5-(methylenoxy)pentylaminocarbonyl, 6-(methylenoxy)hexylaminocarbonyl,

7-(methylenoxy)heptylaminocarbonyl, 8-(methylenoxy)octylaminocarbonyl,

9-(methylenoxy)nonylaminocarbonyl, 10-(methylenoxy)decylaminocarbonyl,

11-(methylenoxy)undecylaminocarbonyl, 12-(methylenoxy)dodecylaminocarbonyl,

2-(methylenoxy)ethanoylamino, 3-(methylenoxy)propanoylamino,

4-(methylenoxy)butanoylamino, 5-(methylenoxy)pentanoylamino,

6-(methylenoxy)hexanoylamino, 7-(methylenoxy)heptanoylamino,

8-(methylenoxy)octanoylamino, 9-(methylenoxy)nonanoylamino,

10-(methylenoxy)decanoylamino, 11-(methylenoxy)undecanoylamino, 12-

(methylenoxy)dodecylaminocarbonyl, 2-(carbonyloxy)ethanoyloxy, 3-(carbonyloxy)propyloxy, 3-(carbonyloxy)propyloxycarbonyl, 4-(carbonyloxy)butyloxy, 4-(carbonyloxy)butyloxycarbonyl, 3-(carbonyloxy)propanoyloxy, 5-(carbonyloxy)pentyloxy, 5-(carbonyloxy)pentyloxycarbonyl, 4-(carbonyloxy)butanoyloxy, 6-(carbonyloxy)hexyloxy, 6-(carbonyloxy)hexyloxycarbonyl, 5-(carbonyloxy)pentanoyloxy, 7-(carbonyloxy)heptyloxy, 7-(carbonyloxy)heptyloxycarbonyl, 6-(carbonyloxy)hexanoyloxy, 8-(carbonyloxy)octyloxy, 8-(carbonyloxy)octyloxycarbonyl, 7-(carbonyloxy)heptanoyloxy, 9-(carbonyloxy)nonyloxy, 9-(carbonyloxy)nonyloxycarbonyl, 8-(carbonyloxy)octanoyloxy, 10-(carbonyloxy)decyloxy, 10-(carbonyloxy)decyloxycarbonyl, 9-(carbonyloxy)nonanoyloxy, 11-(carbonyloxy)undecyloxy, 11-(carbonyloxy)undecyloxycarbonyl, 10-(carbonyloxy)decanoyloxy, 12-(carbonyloxy)dodecyloxy, 12-(carbonyloxy)dodecyloxycarbonyl, 11-(carbonyloxy)undecanoyloxy, 3-(carbonyloxy)propylaminocarbonyl, 4-(carbonyloxy)butylaminocarbonyl, 5-(carbonyloxy)pentylaminocarbonyl, 6-(carbonyloxy)hexylaminocarbonyl, 7-(carbonyloxy)heptylaminocarbonyl, 8-(carbonyloxy)octylaminocarbonyl, 9-(carbonyloxy)nonylaminocarbonyl, 10-(carbonyloxy)decylaminocarbonyl, 11-(carbonyloxy)undecylaminocarbonyl, 12-(carbonyloxy)dodecylaminocarbonyl, 2-(carbonyloxy)ethanoylamino, 3-(carbonyloxy)propanoylamino, 4-(carbonyloxy)butanoylamino, 5-(carbonyloxy)pentanoylamino, 6-(carbonyloxy)hexanoylamino, 7-(carbonyloxy)heptanoylamino, 8-(carbonyloxy)octanoylamino, 9-(carbonyloxy)nonanoylamino, 10-(carbonyloxy)decanoylamino, 11-(carbonyloxy)undecanoylamino, 12-(carbonyloxy)dodecylaminocarbonyl, 6-(3-propylenaminocarbonyloxy)hexylen, 6-(3-propylenoxy)hexylen,

6-(3-propylenoxy)hexyloxy, 6-(3-propylenaminocarbonyloxy)hexyloxy,

6-(3-propylenaminocarbonyl)hexyl, 6-(3-propylenaminocarbonyl)hexyloxy,

2-(methylenoxy)ethyloxycarbonyloxy, 3-(methylenoxy)propyloxycarbonyloxy,

6-(methylenoxy)hexyloxycarbonyloxy, 2-(methylenoxycarbonyl)ethylen,

3-(methylenoxycarbonyl)propyloxycarbonyloxy,

6-(methylenoxycarbonyl)hexyloxycarbonyloxy, 6-(3-propylenoxycarbonyloxy)hexylen,

6-(3-propylenoxycarbonyl)hexylen, 2-(methylenaminocarbonyl)ethylen,

3-(methylenaminocarbonyl)propylen, 6-(methylenaminocarbonyl)hexylen,

6-(3-propylenaminocarbonyloxy)hexylen, 6-(3-propylenaminocarbonyl)hexylen,

4-{[6-(methylenoxy)hexyl]oxy}phenylen, 4-[6-(methylenoxy)hexyl]cyclohexylen,

3-methoxy-4-{[6-(methylenoxy)hexyl]oxy}phenylen,

4-{[6-(methylenoxy)hexyl]oxy}phenylcarbonyloxy,

4-[6-(methylenoxy)hexyl]cyclohexanoyloxy,

3-ethoxy-4-{[8-(methylenoxy)octyl]oxy}phenylcarbonyloxy,

4-[3-(carbonyloxy)propyl]phenylen, 4-[6-(carbonyloxy)hexyl]phenylen,

4-[6-(carbonyloxy)hexyl]cyclohexylen, 3-methoxy-4-[6-(carbonyloxy)hexyl]phenylen,

4-[6-(carbonyloxy)hexyl]phenylcarbonyloxy, 4-[6-(carbonyloxy)hexyl]cyclohexanoyloxy,

3-ethoxy-4-[8-(carbonyloxy)octyl]phenylcarbonyloxy,

2-{4-4-{2-(methylenoxy)ethyl}cyclohexyl]phenyl}ethoxy, 1-[4'-{[4-(methylenoxy)butyl]oxy}-

1,1'biphenyl-4-yl]carbonyloxy, 1-{4-[4-{2-(methylenoxy)ethoxy}phenyl}methyloxy,

2-{4-[4-(2-carbonyloxyethyl) cyclohexyl]phenyl}ethoxy, 2-[4'-(4-

carbonyloxybutyl)-1,1'biphenylen-4-yl]ethoxy, 6-{4-[4-(2-carbonyloxyethyl)phenyl}hexyloxy,

5-{[4'-[4-(methylenoxy)butoxy)]-1,1'-biphenyl-4-yl]oxy}pentanoyloxy and the like.

33. (currently amended): Diamine compounds according to claim 22, wherein S^3 is selected from -CO-O-, -CO-NR^1-, -CO- and a straight-chain or branched alkylene group which is unsubstituted, mono or poly-substituted by fluorine, chlorine,or cyano, having 1 to 24 carbon atoms, wherein one or more -CH_2- groups may independently be replaced by a group J, with the proviso that oxygen atoms are not directly attached to each other, wherein R^1 represents a hydrogen atom or lower alkyl.

34. (currently amended): Diamine compounds according to claim 22, wherein S^3 is selected from a single covalent bond, -$(CH_2)_r$-, -CO-$(CH_2)_r$-, -CO -O -$(CH_2)_r$-, -CO -NR^1 -$(CH_2)_r$-, -$(CH_2)_r$-O-$(CH_2)_s$-, -$(CH_2)_r$-CO-O-$(CH_2)_s$-, -$(CH_2)_r$-O-CO-$(CH_2)_s$-, -$(CH_2)_r$-NR^1-CO-$(CH_2)_s$-, -$(CH_2)_r$-NR^1-CO-O-$(CH_2)_s$-, and -CO-O-$(CH_2)_r$-O-$(CH_2)_s$-, wherein R^1 is as defined herein above; r and s each represent an integer from 1 to 20; and $r + s \leq 21$. ~~It is more preferred that r and s each represent an integer from 1 to 12. It is especially preferred that $r + s \leq 15$.~~

35. (previously presented): Diamine compounds according to claim 22, wherein S^3 include 1,2-ethylen, 1,3-propylen, 1,4-butylen, 1,5-pentylen, 1,6-hexylen, 1,7-heptylen, 1,8-octylen, 1,9-nonylen, 1,10-decylen, 1,11-undecylen, 1,12-dodecylen, 3-methyl-1,4-butylen, 2-(methylenoxy)ethylen, 3-(methylenoxy)propylen, 4-(methylenoxy)butylen, 5-(methylenoxy)pentylen, 6-(methylenoxy)hexylen, 7-(methylenoxy)heptylen, 8-(methylenoxy)octylen, 9-(methylenoxy)nonylen, 10-(methylenoxy)decylen, 11-(methylenoxy)undecylen, 12-(methylenoxy)dodecylen, 2-(carbonyloxy)ethylen, 3-(carbonyloxy)propylen, 4-(carbonyloxy)butylen, 5-(carbonyloxy)pentylen, 6-(carbonyloxy)hexylen, 7-(carbonyloxy)heptylen, 8-(carbonyloxy)octylen,

9-(carbonyloxy)nonylen, 10-(carbonyloxy)decylen, 11-(carbonyloxy)undecylen, 12-(carbonyloxy)dodecylen, 2-(carbonylamino)ethylen, 3-(carbonylamino)propylen, 4-(carbonylamino)butylen, 5-(carbonylamino)pentylen, 6-(carbonylamino)hexylen, 7-(carbonylamino)heptylen, 8-(carbonylamino)octylen, 9-(carbonylamino)nonylen, 10-(carbonylamino)decylen, 11-(carbonylamino)undecylen, 12-(carbonylamino)dodecylen, 6-(3-propylenaminocarbonyloxy)hexylen, 6-(3-propylenoxy)hexylen, 6-(3-propylenaminocarbonyl)hexyl, 2-(methylenoxycarbonyl)ethylen, 6-(3-propylenoxycarbonyloxy)hexylen, 6-(3-propylenoxycarbonyl)hexylen, 2-(methylenaminocarbonyl)ethylen, 3-(methylenaminocarbonyl)propylen, 6-(methylenaminocarbonyl)hexylen, 6-(3-propylenaminocarbonyloxy)hexylen, 6-(3-propylenaminocarbonyl)hexylen , 4-{[6-(methylenoxy)hexyl]oxy}phenylen, 4-[6-(methylenoxy)hexyl]cyclohexylen, 3-methoxy-4-{[6-(methylenoxy)hexyl]oxy}phenylen, 4-[3-(carbonyloxy)propyl]phenylen, 4-[6-(carbonyloxy)hexyl]phenylen, 4-[6-(carbonyloxy)hexyl]cyclohexylen, 3-methoxy- 4-[6-(carbonyloxy)hexyl]phenylen and the like.

36. (previously presented): Diamine compounds according to claim 22, wherein Q is an oxygen atom or -NH-.

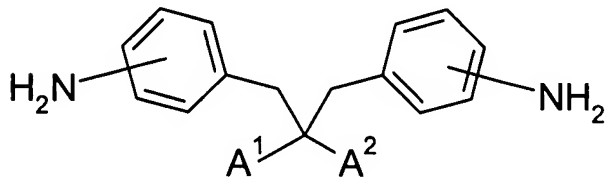
37. (previously presented): Diamine compounds according to claim 22, wherein Q is an oxygen atom.

38. (previously presented): Diamine compounds according to claim 22, wherein X and Y represent hydrogen.

39. (previously presented): Diamine compounds according to claim 22 , wherein the photoactive groups are groups of formula IIIa.

40. (currently amended): ~~Use~~ Method of using a diamine compound according to claim 22, comprising providing the diamine compound as precursor for the production of liquid crystal alignment layers.

41. (currently amended): A liquid crystal orientation material obtained by the reaction of a diamine compound of general formula I:



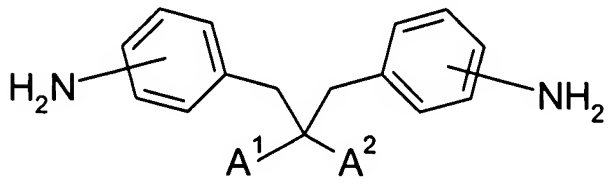
I

wherein

A^1 represents an organic group of 1 to 40 carbon atoms;

A^2 represents a hydrogen atom or an organic group of 1 to 40 carbon atoms.

42. (currently amended): A polymer from the class of polyamic acids, polyamic acid esters or polyimides obtained by the reaction of a diamine compound of general formula I with one or more tetracarboxylic acid anhydride of general formula IV:

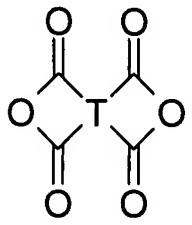


I

wherein

A^1 represents an organic group of 1 to 40 carbon atoms;

A^2 represents a hydrogen atom or an organic group of 1 to 40 carbon atoms;



IV

wherein T represents a tetravalent organic radical.

43. (original): A polymer according to claim 42 obtained by the reaction of a diamine compound of general formula I and one or more additional diamines with one or more tetracarboxylic acid anhydride of general formula IV.

44. (previously presented): A polymer according to claim 42, wherein T is derived from an aliphatic, alicyclic or aromatic tetracarboxylic acid dianhydride.

45. (original): A polymer according to claim 44, wherein the aliphatic or alicyclic tetracarboxylic acid dianhydride is 1,1,4,4-butanetetracarboxylic acid dianhydride,
ethylenemaleic acid dianhydride,
1,2,3,4-cyclobutanetetracarboxylic acid dianhydride,
1,2,3,4-cyclopentanetetracarboxylic acid dianhydride,
2,3,5-tricarboxycyclopentylacetic acid dianhydride,
3,5,6-tricarboxynorbornylacetic acid dianhydride,
2,3,4,5-tetrahydrofurantetracarboxylic acid dianhydride,
rel-[1S,5R,6R]-3-oxabicyclo[3.2.1]octane-2,4-dione-6-spiro-3'-(tetrahydrofuran2',5'-dione),
4-(2,5-dioxotetrahydrofuran-3-yl)tetrahydronaphthalene-1,2-dicarboxylic acid dianhydride,
5-(2,5-dioxotetrahydrofuran-3-yl)-3-methyl-3-cyclohexene-1,2-dicarboxylic acid dianhydride,
bicyclo[2.2.2]oct-7-ene-2,3,5,6-tetracarboxylic acid dianhydride,

bicyclo[2.2.2]octane-2,3,5,6-tetracarboxylic acid dianhydride,

1,8-dimethylbicyclo[2.2.2]oct-7-ene-2,3,5,6-tetracarboxylic acid dianhydride

and the like.

46. (previously presented): A polymer according to claim 44, wherein the aromatic tetracarboxylic acid dianhydride is pyromellitic acid dianhydride,

3,3',4,4'-benzophenonetetracarboxylic acid dianhydride,

4,4'-oxydiphthalic acid dianhydride,

3,3',4,4'-diphenylsulfonetetracarboxylic acid dianhydride,

1,4,5,8-naphthalenetetracarboxylic acid dianhydride,

2,3,6,7-naphthalenetetracarboxylic acid dianhydride,

3,3',4,4'-dimethyldiphenylsilanetetracarboxylic acid dianhydride,

3,3',4,4'-tetraphenylsilanetetracarboxylic acid dianhydride,

1,2,3,4-furantetracarboxylic acid dianhydride,

4,4'-bis(3,4-dicarboxyphenoxy)diphenyl sulfide dianhydride,

4,4'-bis(3,4-dicarboxyphenoxy)diphenyl sulfone dianhydride,

4,4'-bis(3,4-dicarboxyphenoxy)diphenylpropane dianhydride,

3,3',4,4'-biphenyltetracarboxylic acid dianhydride,

ethylene glycol bis(trimellitic acid) dianhydride,

4,4'-(1,4-phenylene)bis(phthalic acid) dianhydride,

4,4'-(1,3-phenylene)bis(phthalic acid) dianhydride,

4,4'-(hexafluoroisopropylidene)diphthalic acid dianhydride,

4,4'-oxydi(1,4-phenylene)bis(phthalic acid) dianhydride,

4,4'-methylenedi(1,4-phenylene)bis(phthalic acid) dianhydride

and the like.

47. (withdrawn): A polymer according to claim 44, wherein the tetracarboxylic acid dianhydrides are 1,2,3,4-cyclobutanetetracarboxylic acid dianhydride,

1,2,3,4-cyclopentanetetracarboxylic acid dianhydride,

2,3,5-tricarboxycyclopentylacetic acid dianhydride,

5-(2,5-dioxotetrahydrofuran-3-yl)-3-methyl-3-cyclohexene-1,2-dicarboxylic acid dianhydride,

4-(2,5-dioxotetrahydrofuran-3-yl)tetrahydronaphthalene-1,2-dicarboxylic acid dianhydride,

4,4'-(hexafluoroisopropylidene)diphthalic acid dianhydride and

bicyclo[2.2.2]oct-7-ene-2,3,5,6-tetracarboxylic acid dianhydride.

48. (withdrawn): A polymer according to claim 43, wherein the additional diamine is ethylenediamine, 1,3-propylenediamine, 1,4-butylenediamine, 1,5-pentylenediamine,

1,6-hexylenediamine, 1,7-heptylenediamine, 1,8-octylenediamine, 1,9-nonylenediamine,

1,10-decylenediamine, 1,11-undecylenediamine, 1,12-dodecylenediamine,

α,α'-diamino-*m*-xylene, α,α'-diamino-*p*-xylene,

(5-amino2,2,4-trimethylcyclopentyl)methylamine, 1,2-diaminocyclohexane,

4,4'-diaminodicyclohexylmethane, 1,3-bis(methylamino)cyclohexane,

4,9-dioxadodecane-1,12-diamine, 3,5-diaminobenzoic acid methyl ester,

3,5-diaminobenzoic acid hexyl ester, 3,5-diaminobenzoic acid dodecyl ester,

3,5-diaminobenzoic acid isopropyl ester, 4,4'-methylenedianiline, 4,4'-ethylenedianiline,

4,4'-diamino-3,3'-dimethyldiphenylmethane, 3,3',5,5'-tetramethylbenzidine,

4,4'-diaminodiphenyl sulfone, 4,4'-diaminodiphenyl ether, 1,5-diaminonaphthalene,

3,3'-dimethyl-4,4'-diaminobiphenyl, 3,4'-diaminodiphenyl ether, 3,3'-diaminobenzophenone,

4,4'-diaminobenzophenone, 4,4'-diamino-2,2'-dimethylbibenzyl,

bis[4-(4-aminophenoxy)phenyl] sulfone, 1,4-bis(4-aminophenoxy)benzene,

1,3-bis(4-aminophenoxy)benzene, 1,3-bis(3-aminophenoxy)benzene, 2,7-diaminofluorene,

9,9-bis(4-aminophenyl)fluorene, 4,4'-methylenebis(2-chloroaniline),

4,4'-bis(4-aminophenoxy)biphenyl, 2,2',5,5'-tetrachloro-4,4'-diaminobiphenyl,

2,2'-dichloro-4,4'-diamino-5,5'-dimethoxybiphenyl, 3,3'-dimethoxy-4,4'-diaminobiphenyl,

4,4'-(1,4-phenyleneisopropylidene)bisaniline, 4,4'-(1,3-phenyleneisopropylidene)bisaniline,

2,2-bis[4-(4-aminophenoxy)phenyl]propane,

2,2-bis[3-(4-aminophenoxy)phenyl]hexafluoropropane,

2,2-bis[3-amino-4-methylphenyl]hexafluoropropane, 2,2-bis(4-aminophenyl)hexafluoropropane,

2,2'-bis[4-(4-amino-2-trifluoromethylphenoxy)phenyl]hexafluoropropane,

4,4'-diamino-2,2'-bis(trifluoromethyl)biphenyl, and

4,4'-bis[(4-amino-2-trifluoromethyl)phenoxy]-2,3,5,6,2',3',5',6'-octafluorobiphenyl.

49. (withdrawn): A polymer according to claim 42, wherein the polymer comprise as side-chains a photoreactive group that can be photoisomerized and/or photodimerized on exposure to UV or laser light.

50. (withdrawn): A polymer according to claim 42, wherein at least 75 % of repeating units include a side chain with a photoreactive group.

51. (withdrawn): A polymer according to claim 42 having an intrinsic viscosity in the range of 0.05 to 10 dL/g.

52. (withdrawn): A polymer according to claim 42 having an intrinsic viscosity in the range of 0.05 to 5 dL/g.

53. (withdrawn): A polymer according to claim 42 comprising from 2 to 2000 repeating units.

54. (withdrawn): A polymer according to claim 42 comprising from 3 to 200 repeating units.

55. (withdrawn): A polymer according to claim 42 further comprising additives such as silane-containing compounds and epoxy-containing crosslinking agents.

56. (withdrawn): A polymer according to claim 55, wherein the epoxy-containing crosslinking agents include 4,4'-methylene-bis-(*N*,*N*-diglycidylaniline), trimethylolpropane triglycidyl ether, benzene-1,2,4,5-tetracarboxylic acid 1,2:4,5-*N*,*N*'-diglycidyldiimide, polyethylene glycol diglycidyl ether, *N*,*N*-diglycidylcyclohexylamine and the like.

57. (withdrawn): A polymer according to claim 42 further comprising additional additives such as a photosensitizer, a photoradical generator and/or a cationic photoinitiator.

58. (withdrawn): A polymer according to claim 57, wherein the additional additive includes 2,2-dimethoxyphenylethanone, a mixture of diphenylmethanone and *N*,*N*-dimethylbenzenamine or ethyl 4-(dimethylamino)benzoate, xanthone, thioxanthone, Irgacure™ 184, 369, 500, 651 and 907 (Ciba), Michler's ketone, and triaryl sulfonium salt.

59. (withdrawn): A polymer layer comprising a polymer according to claim 42 in a crosslinked form.

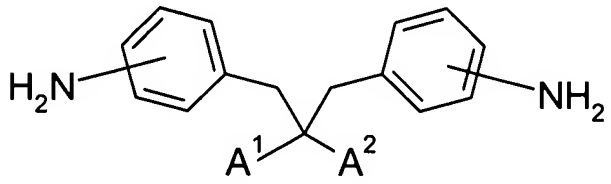
60. (withdrawn): A polymer layer according to claim 59 as orientation layers for liquid crystals.

61. (withdrawn): A polymer layer according to claim 59 further comprising other polymers, oligomers, monomers, photoactive polymers, photoactive oligomers and/or photo-active monomers

62. (withdrawn-currently amended): ~~Use~~ Method of using a polymer layer according to claim 60, comprising providing the polymer layer in the manufacture of optical constructional elements, preferably in the production of hybrid layer elements.

63. (withdrawn-currently amended): Method of preparing a polymer layer according to claim 59 by applying one or more polymers ~~according to claim 42~~ to a support and, after any optional imidisation step, crosslinking the polymer or polymer mixture by irradiation with linearly polarized light,

wherein the one or more polymers are one or more polymers from the class of polyamic acids, polyamic acid esters or polyimides obtained by the reaction of a diamine compound of general formula I with one or more tetracarboxylic acid anhydride of general formula IV:

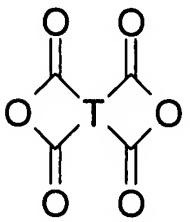


I

wherein

A^1 represents an organic group of 1 to 40 carbon atoms;

A^2 represents a hydrogen atom or an organic group of 1 to 40 carbon atoms;



IV

wherein T represents a tetravalent organic radical.

64. (withdrawn): Polymer layers according to claim 42 having a thickness of 0.05 to 50 μm.

65. (withdrawn-currently amended): ~~Use~~ Method of using polymer layers according to claim 59, comprising providing the polymer layers in the production of optical or electro-optical devices as well as unstructured and structured optical elements and multi-layer systems.

66. (withdrawn): Optical or electro-optical device comprising one or more polymers according to claim 42 in crosslinked form.

67. (withdrawn-currently amended): Electro-optical devices according to claim 66 ~~comoprising~~ comprising more than one layer.